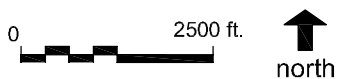
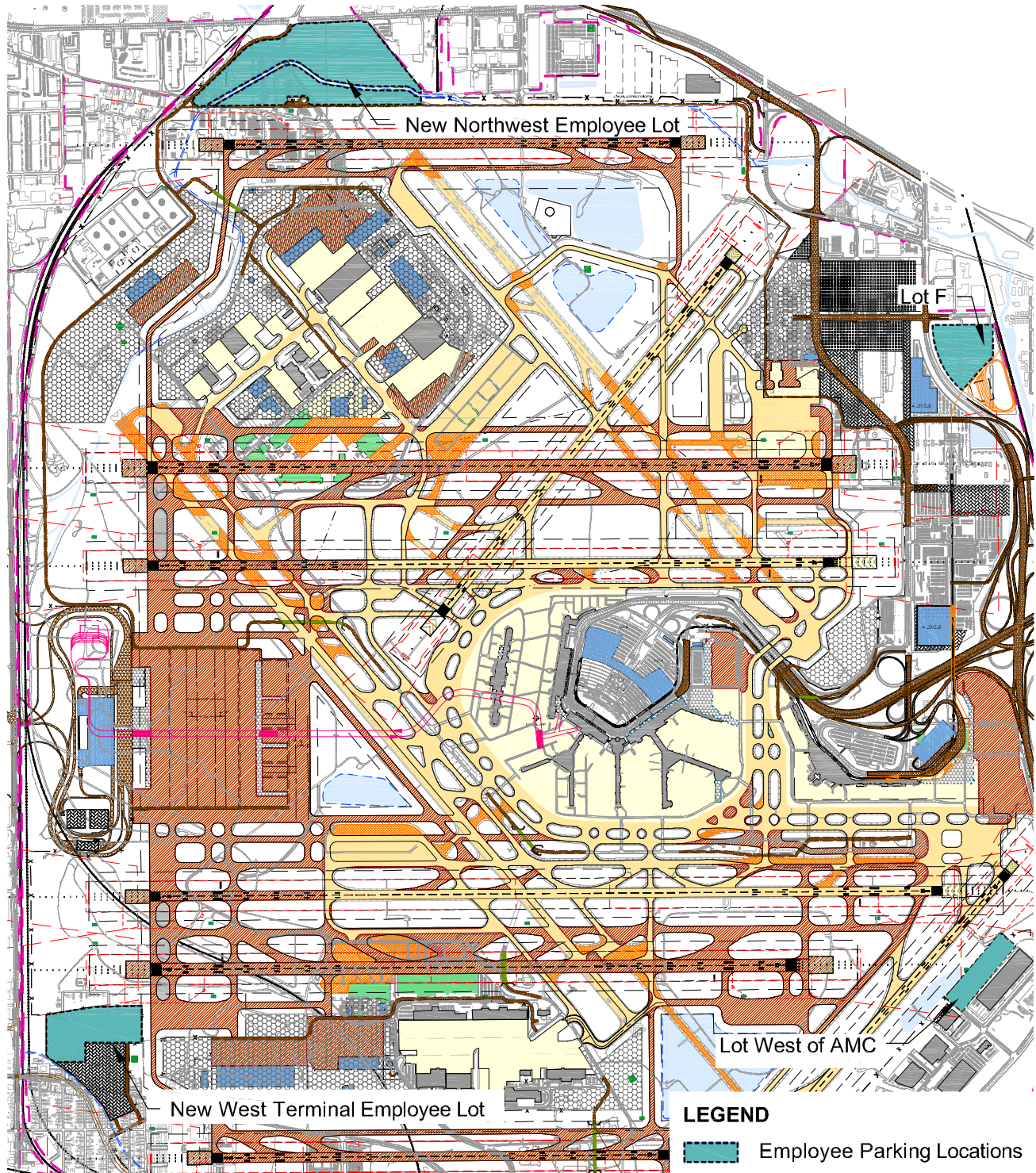


Source: Ricondo & Associates, Inc.; Martinez Corp. Aerial Photography (Nov. 2001);
Department of Aviation Airport Management and Records
Prepared by: Ricondo & Associates, Inc.

Exhibit V-106

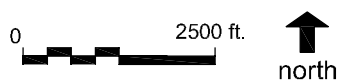


Parking for Employees Working in Terminals Alternative Concept



Source: Ricondo & Associates, Inc.; Martinez Corp. Aerial Photography (Nov. 2001);
 Department of Aviation Airport Management and Records
 Prepared by: Ricondo & Associates, Inc.

Exhibit V-107



Parking for Employees Working in Terminals Preferred Concept

- A significant amount of employee parking is currently provided in the Northwest Maintenance Area. Opportunity for expansion of parking in the Northwest Maintenance Area exists. It is estimated that the preferred concept will include 7,990 stalls for employees working in terminal areas in the Northwest Maintenance Area.⁹
- A new West Terminal employee lot can be accommodated in the west portion of the Southwest Cargo Area, immediately to the north of the long-term public parking lot. It is noted that the public and employee parking lots in this area would have separate entrance/exit roadways to facilitate access. This lot accommodates approximate 3,540 employee parking stalls.

Considering that the AMC, Lot F, and Northwest Maintenance Area lots accommodate employees working in the Terminal Core and East Terminal Areas, the total 11,700 stalls provided in this concept meet the requirements identified for the east side of the Airport. The lot identified to support the West Terminal Complex, providing approximately 3,540 stalls, exceeds the requirement identified for the west side of the Airport.¹⁰

In total, the plan provides approximately 15,250 stalls Airport-wide, exceeding the total Airport-wide 2018 requirement of 12,090 stalls by approximately 3,160 stalls. It is noted that TSA employees were not explicitly evaluated in the employee parking requirements, because the requirements were based on employee characteristics at the Airport in 2001, prior to the employment of TSA workers. It is estimated that there are approximately 2,000 TSA employees now employed at the Airport. Because the parking plan exceeds the employee requirement by over 3,000 parking stalls due to the phasing need to satisfy a mid-program peak demand on the east side of the Airport, the parking plan is considered sufficient to accommodate TSA workers.

5.4.4.3 Employees Working at Other On-Airport Facilities

The preferred employee parking concept assumes that parking for employees working in areas of the Airport other than the Terminals would be provided onsite at each facility.

Although not a programmatic requirement, the preferred employee parking plan depicts the ability to relocate (replace in-kind, consistent with the discussion in Section 4.4.3) the 3,121 stalls supporting employees working in the Northwest Maintenance Area to the new northwest employee parking lot. Although timing for the development of this facility has not yet been defined, this consolidated facility provides an opportunity for the ultimate relocation of all employee parking from within the Northwest Maintenance Area to an area outside of the Airport Operations Area.

⁹ A consolidated northwest employee lot, as depicted in Exhibit V-107, can accommodate approximately 11,000 stalls. Although timing for the development of this facility has not yet been defined, this consolidated facility provides an opportunity for the ultimate relocation of all employee parking from within the Northwest Maintenance Area to an area outside the Airport Operations Area. Currently, the Northwest Maintenance Area accommodates 9,588 stalls for employees, 6,467 of which are dedicated to employees working in the Terminal Core and East Terminal Areas and 3,121 stalls for employees working at the facilities in the Northwest Maintenance Area. Per programmatic requirements, this lot would accommodate increased demand for terminal employee parking; however, given the opportunity to relocate employee parking outside of the Airport Operations Area, the concept depicts a surface parking lot demonstrating the ability to accommodate the relocated parking needs, including replacement of the 3,121 stalls supporting the Northwest Maintenance Area facilities. (See Section 5.4.4.3.)

¹⁰ Spine Road, an element of the previously approved May 2002 Future ALP, and associated fencing impacts 419 stalls in the AMC employee parking lot. This impact reduces the total stalls for employees working in east side terminals to 11,300, still exceeding the estimated peak east side demand of 11,100 stalls.

5.4.5 Rental Car Facilities

General rental car facility requirements were established in Section 4.4.4. Due to the need to accommodate rental car facilities on both the east and west sides of the Airport based on the preferred terminal plan, concepts to accommodate these facilities on both sides of the Airport were explored.

The WGP included a consolidated rental car facility (consisting of a structure and surface parking) in the southern portion of the Northeast Quadrant and a rental car storage and maintenance lot on a parcel located at the northeast corner of I-190 and the Canadian National Railroad. The two sites are linked together by a dedicated non-public road and bridge over Mannheim Road. However, the square footage accommodated in this concept did not meet the projected facility requirement identified in this planning process.

Therefore, concepts developed for the Northeast Quadrant to support the east side of the Airport illustrate alternatives to meet the increased rental car requirements for the east side of the Airport, as discussed below:

- *Concept 1*, depicted in Exhibit V-101, includes the relocation of a consolidated rental car facility. In this concept, the rental car campus is relocated to the northern part of the Northeast Quadrant. This area, however, is not currently served by an ATS station and, given the current alignment of the ATS, as well as the preferred alignment identified in Section 5.5, the addition of a station to serve a consolidated rental car facility would require ATS realignment.
- *Concept 2*, shown in Exhibit V-102, depicts the rental car component of this Northeast Quadrant concept identical to that shown in Concept 3.
- *Concept 3* is depicted in Exhibit V-103. This concept maintains the existing footprint of the rental car facilities and includes the addition of the parcel at the northeast corner of I-190 and the Canadian National Railroad for a maintenance and storage facility. A four-level consolidated rental car structure could be accommodated at the southern part of the main parcel, to the west of Mannheim Road. These components provide a total of approximately 118 acres for rental car facilities. The concept maintains the new ATS station supporting the consolidated rental car structure, as proposed in the WGP. The concept is similar to that contained in the WGP; however, the footprint is larger, reflecting the larger facility requirement identified in the planning process. The four-level structure is located outside of the extended OFA and is not a 14 CFR Part 77 violation as currently envisioned. As depicted, however, a corner of the structure penetrates the Runway 9L-27R RPZ. It is anticipated that further refinement of this building location will occur during subsequent planning or design.

Concept 3 is the preferred concept for rental car development on the East Side of the Airport. This site can be served by an ATS Station, whereas Concept 1 cannot given the current alignment of the ATS. It is noted that concepts for the development of the Northeast Quadrant combined all elements of ground access components, and thus, in terms of concepts for rental car facilities, Concepts 2 and 3 are identical. Concept 3, of the two identical concepts, is noted as the preferred concept simply to be consistent with the preferred concepts for the other ground access components in the Northeast Quadrant, as discussed in Section 5.4.3.3.

The first level of the parking garage at the West Terminal Complex was designated for ready car/ready return functions and the area adjacent to and west of the parking garage was designated for rental car QTA uses such as vehicle cleaning and fueling. The preferred West Terminal landside concept is depicted in Exhibit V-104. No alternatives to this concept were explored.

5.4.6 Commercial Vehicle Staging Areas

Based on the preferred terminal concept, new commercial vehicle staging facilities on the west side of the Airport are needed to support the landside element of the West Terminal Complex. Existing facilities on the east side of the Airport were evaluated and relocated, where impacted by the preferred airfield concept.

The following discussions of location (i.e., east side and west side) and type of staging area are preceded by a refinement of the commercial vehicle staging requirements identified in Section 4.4.5 based on the nature and timing of the preferred concept.

5.4.6.1 Refinement of Commercial Vehicle Staging Requirements

The facility requirements methodology for commercial vehicle staging areas is discussed in Section 4.4.5. Following the methodology defined in Section 5.4.4.1 for public parking to identify east side versus west side facility requirements, commercial vehicle staging requirements for the years 2014 and 2018 were developed as summarized in **Table V-19**.

Table V-19

Refinement of Commercial Vehicle Staging Area Facility Requirements (square feet)

	East Side			West Side		
	City Taxis	Limousines	Other ^{1/}	City Taxis	Limousines	Other ^{1/}
2014	202,790	297,500	167,220	-	-	-
2018	196,150	203,900	161,750	37,360	38,840	30,810

1/ "Other" commercial vehicles include suburban taxis, shuttle buses, and regional buses.

Source: Ricondo & Associates, Inc.
Prepared by: Ricondo & Associates, Inc.

Commercial vehicle staging requirements are projected to meet the highest level of demand, which on the east side is experienced in 2014, per a preliminary phasing concept. In 2018, the demand for commercial vehicle staging area is reduced in comparison to 2014 due to the opening of the landside component of the West Terminal Complex.

5.4.6.2 Commercial Vehicle Staging Concepts

Two areas were considered for staging commercial vehicles on the east side of the Airport. In both alternatives, the existing Commercial Vehicle Holding Area (CVHA) at the northwest corner of Bessie Coleman Drive and I-190 remain. The previously approved May 2002 Future ALP included a new Limo Service Center, located west of Bessie Coleman Drive. The preferred airfield concept, however, will displace this facility, as it would be located within the RPZ of new Runway 9C-27C.

- *Concepts 1 and 2*, developed for the Northeast Quadrant and depicted in Exhibits V-101 and V-102, consider the accommodation of commercial vehicle staging along the west side of realigned Bessie Coleman Drive at what is commonly referred to as "the

Military Site.” However, the preferred collateral development/future airfield development area in this part of the Northeast Quadrant displaces this area identified for commercial vehicle staging. Thus, any facility located in this area for commercial vehicle staging should only be considered on an interim basis.

- *Concept 3*, the preferred concept for the Northeast Quadrant, depicted in Exhibit V-103, meets facility requirements for commercial vehicle staging on the east side of the Airport by maintaining the existing Commercial Vehicle Staging Area (313,300 square feet) and designating a new 405,700-square foot parcel, west of Bessie Coleman Drive and north of the new Runway 9C-27C RPZ, for staging areas. A total of approximately 719,000 square feet for commercial vehicle staging on the east side of the Airport is provided in this concept. While the ultimate mix of commercial vehicles between the two staging areas will depend on future conditions, the total area for Commercial Vehicle Staging Area of approximately 251,250 square feet will be designated for use by City taxis as well as one of the “other” vehicles modes (i.e., suburban taxis, shuttle buses, or regional buses) that will be determined by the Airport at a later date. The new staging area will support a limousine service center as well as the remaining commercial vehicles types.

The preferred landside concept for the West Terminal includes area identified for commercial vehicle staging in the southern end of the West Terminal roadway system loop, as depicted in Exhibit V-104. In order to minimize response times, maintain operational efficiency, and reduce vehicle miles traveled along Airport roadways, the commercial vehicle staging areas were located as close to the terminal curbs as possible. Thus, no other options for staging of commercial vehicles on the west side were explored. A total of 239,590 square feet is provided in three lots for commercial vehicle staging. The land available for commercial vehicle staging within the loop roadway system exceeds the identified facility requirements developed in the programming effort.

It is noted that the commercial vehicles staging area requirements were developed before the potential need for screening commercial vehicles at the Airport was identified. Following development of the preferred concept, the TSA proposed the potential need for screening of some or all commercial vehicles prior to entering the Terminal Core Area. Today, screening of commercial vehicles (other than taxis and limos departing from the staging areas) is occurring as vehicles enter the commercial vehicle lane on the main Airport roadway. In the future, TSA may require that vehicles be screened prior to leaving the staging areas. However, doing so would require that a secure route be provided between the future staging area and the terminal commercial vehicle lane (which is not provided for at this time). If this occurs, a detailed operational planning analysis will need to be prepared to determine if the planned staging areas are large enough to meet the vehicle staging and screening requirements.

The planned commercial vehicle staging areas that will support the West Terminal Complex are not connected to the terminal curbs via a secure roadway. As is the case for new staging area on the east side of the Airport, it is assumed that commercial vehicles will not be screened in the staging area prior to accessing the terminal curbs at the West Terminal. If this turns out not to be the case, a detailed operations planning study would need to be completed to determine the feasibility of screening vehicles in the west side staging areas.

5.4.7 Railroads

The preferred airfield concept necessitates relocation of an existing active double track freight rail line owned by the Union Pacific Railroad that traverses the western and southern portions of the existing Airport property. Five alternative concepts for relocation of this rail line were developed, two focusing on the east side of the Airport and three focusing on the west side of the Airport. This section describes each concept considered and summarizes the evaluation of the various concepts. **Exhibit V-108** depicts the rail system adjacent to O'Hare.

The following concepts for the Union Pacific Railroad were developed:

- *Concept 1*, depicted in **Exhibit V-109**, reroutes the Union Pacific Railroad to the Canadian National corridor along the east side of the Airport. The relocation begins in Des Plaines and continues to Mannheim Road, where the Union Pacific follows a new alignment, crossing over the Metra tracks and the Canadian Pacific Railroad yard on structure, following along the north side of Green Street, and connecting to the existing alignment.
- *Concept 2*, depicted in **Exhibit V-110**, also reroutes the Union Pacific Railroad along the Canadian National corridor beginning in Des Plaines and continues south to Franklin Park where it would be rerouted along the Indiana Harbor Belt Railroad tracks terminating at the eastern gateway to the Union Pacific's Proviso Yard.
- *Concept 3*, depicted in **Exhibit V-111**, relocates the Union Pacific to the Canadian Pacific tracks along the west side of the Airport, crossing Irving Park Road on a new structure, crossing the Metra tracks and Canadian Pacific Railroad on structure, and then turning east along the south side of the Canadian Pacific rail yard connecting into the existing Union Pacific alignment at Green Street. The Canadian Pacific Railroad would follow the existing tracks south to where the existing Canadian Pacific/Union Pacific tracks split and then continue on a new alignment parallel to the east of the existing Canadian Pacific alignment. This alternative includes grade separations of the Canadian Pacific and Union Pacific Railroads at Irving Park Road.
- *Concept 4*, depicted in **Exhibit V-112**, is similar to Concept 3, although the Canadian Pacific Railroad remains on its existing alignment and the Union Pacific is located on a new alignment parallel to and east of the Canadian Pacific tracks, crossing over Irving Park Road, Metra, and the Canadian Pacific Railroad on new structures then following an alignment along the south side of the Canadian Pacific's Railroad yard connecting with the Union Pacific's existing alignment at Green Street. This alternative includes grade separations of the Canadian Pacific and Union Pacific Railroads at Irving Park Road.
- *Concept 5*, depicted in **Exhibit V-113**, is similar to Concept 4 and has the Union Pacific following a new alignment parallel to and east of the Canadian Pacific tracks, crossing Irving Park Road on new structure, then turning east parallel to and north of Metra, crossing over Metra and the Canadian Pacific's Railroad yard on new structures, and connecting to the existing alignment at Green Street. This alternative includes grade separations of the Canadian Pacific and Union Pacific Railroads at Irving Park Road.

Table V-20 summarizes the comparison of the concepts for relocation of the Union Pacific Railroad. The evaluation criteria focused on operational and cost considerations, socioeconomic, safety and environmental impacts.



LEGEND

UP RR = Union Pacific Railroad

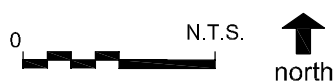
CN RR = Canadian National Railroad

CP RR = Canadian Pacific Railroad

IHB RR = Indiana Harbor Belt Railroad

Source: URS Corporation
Prepared by: URS Corporation

Exhibit V-108



**Union Pacific Railway Relocation
Railroads Bordering O'Hare**